

REALIZATION OF THE GENERALIZED TRANSFER EQUATION IN A MEDIUM WITH FRACTAL GEOMETRY.

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Abstract

It is shown that in a medium representing an example of 'Koch's tree'-type fractional structure the diffusion process is described by a generalized transfer equation in partial derivations. Such a structure can serve as a model of a porous medium where the diffusion process takes place. The geometry of an inhomogeneous medium can serve as the decisive factor in the explanation of the 'universal response' phenomenon. A range of frequencies is found where such 'superslow' diffusion process can be observed.
